

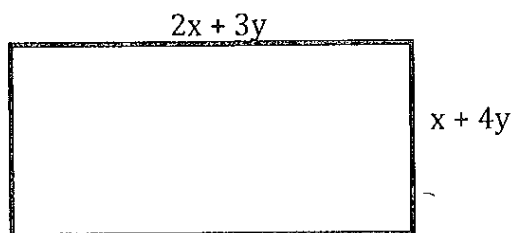
Name: Answer Key

Date: _____

Period: _____

Distributive Property and Properties of Numbers Quiz

Find the perimeter of the figure below. (2 points)



$$\begin{aligned} &2(2x+3y) + 2(x+4y) \\ &4x+6y + 2x+8y \\ &\boxed{6x+14y} \end{aligned}$$

Use the distributive property to simplify each expression. (4 points)

$$\begin{aligned} &8(306) \\ &8(300+6) \\ &2400+48 \\ &\boxed{2448} \end{aligned}$$

$$\begin{aligned} &4[m-2(2m+3)] \\ &4[m-4m-6] \\ &4[-3m-6] \\ &\boxed{-12m-24} \end{aligned}$$

Justify each step. (5 points) BONUS (2 points) Evaluate the expression for $w = -4$
4 Write your answer here: _____

$4w + 7(3 + w)$	Justification
$4w + 21 + 7w$	DP
$4w + 7w + 21$	CP +
$(4w + 7w) + 21$	AP +
$(4 + 7)w + 21$	DP
$11w + 21$	+

$$\begin{aligned} &4(-4) + 7(3 + (-4)) \\ &-16 + 7(-1) \\ &-16 + (-7) \\ &\boxed{-23} \end{aligned}$$

$$\begin{aligned} &4(4) + 7(3 + 4) \\ &16 + 7(7) \\ &16 + 49 \\ &\boxed{65} \end{aligned}$$

Property Bank:

Commutative Property of Addition

Commutative Property of Multiplication

Associative Property of Addition

Associative Property of Multiplication

Identity Property of Addition

Identity Property of Multiplication

Inverse Property of Addition

Inverse Property of Multiplication

Symmetric Property

Multiplication Property of Zero

Multiplication Property of -1

Distributive Property

Name the property that each equation illustrates. (5 points)

$34 + 8 = 8 + 34$	CP +
$5(x - 4) = 5x - 20$	DP
$10n \cdot 1 = 10n$	Id x
$m + (-m) = 0$	In +
$5 \cdot \frac{1}{5} = 1$	In x

Given the following expression, name two of each. (4 points) BONUS (2 points)
Simplify the expression at the bottom of the page.

$-15p^2 + 8p - 10 - 9p + (-2) + 10p^2$			
terms	constants	coefficients	like terms
	-10 -2	-15 8 -9 10	$-15p^2, 10p^2$ $8p, 9p$ $-10, -2$

$$-5p^2 - p - 12$$